



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re:

Applicant : **LANDA, David, et al.**
Serial No. : **09/849,467**
Filed : **May 4, 2001**
For : **PROCESS FOR MAKING ADHESIVE
BONDED SINTERED PLATES**
Examiner : **KEEHAN, Christopher M**
Art Unit : **1712**

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

April 29, 2004

Honorable Sir:

LETTER

In response to the August 20, 2003 Office Action and the May 25, 2004 Notice of Non-Compliant Amendment, please amend the application as follows:

IN THE SPECIFICATION

On page 3, please replace the second paragraph with the following:

U.S. Pat. No. 5,281,481 to Hayward teaches a method of manufacturing a composite friction element wherein a powdered solventless thermosetting adhesive is applied to a metal substrate and the product made from it. The metal substrate and thermosetting adhesive material are heated to allow the powdered solventless adhesive material to flow but not crosslink. A friction material is applied under the heat and pressure to the adhesive such that the adhesive material crosslinks and a composite element is formed. Furthermore, the adhesive material comprises a resin that

contains at least one of the following: 0-70 weight percent range of bisphenol A epoxy resin, unmodified, 0-70 weight percent range of bisphenol A epoxy resin, modified with novolak epoxy, or 0-95 weight percent range of multifunctional epoxy O-cresol novolak resin, and 5-10 weight percent range of bisphenol A epoxy resin with a flow modifier comprising an acrylic acid butyl ester. The present invention is a method of bonding sintered plates using an adhesive. The present invention includes several steps including cleaning the metal core in preparation for application and then later on roughening the application surface so that it would be able to accept a thermosetting phenolic or epoxy adhesive. The present invention bonds the plates at a temperature of 375 F to 475 F at a pressure range of 25-1000 psi for a duration of at least 30 seconds. The present invention allows for bonding of sintered plates, where the metal core may be an aluminum, whose melting point is at 450 F – 1220° F –.

IN THE CLAIMS:

Please cancel claims 12-23.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (New) A method for making sintered plates comprising:

providing a metal core of a first thickness having a top surface and a bottom surface;

cleaning the entire top surface;

roughening the entire top surface;